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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,007	11/20/2003	Alan Michael Jaffee	7237	8750

7590

09/01/2005

Robert D. Touslee  
10100 West Ute Avenue  
Littleton, CO 80127

EXAMINER
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TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/718,007

Applicant(s)

JAFEE ET AL.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-98 is/are pending in the application.
- 4a) Of the above claim(s) 1-50 and 95-98 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51-94 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 111504.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-50,95-98, drawn to a process of making, classified in class 162, subclass 141.
  - II. Claims 51-94, drawn to a nonwoven mat, classified in class 442, subclass 59.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the mat can be made by hydroentangling the fibers and then applying a resin layer to the mat.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Robert Touslee on August 26, 2005 a provisional election was made without traverse to prosecute the invention of group II, claims 51-94. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-50 and 95-98 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 51-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over GEEL (US 2003/0109190 A1) in view of ARKENS et al. (US 5,661,213).

GEEL discloses a nonwoven reinforcing mat that includes a base web having about 10 to about 80 percent by weight glass fibers, about 20 to about 90 percent by weight polyethylene terephthalate fibers and binders. (Abstract) The reference uses polyethylene terephthalate (polyester) fibers as the polymer fibers with diameter of from about 6 to about 16 microns and a length of from about 4 to about 25 mm [*0.15-0.98 inches*]. (Refer to [0008]-[0009]) The reference teaches the use of binders that may be self-crosslinking, non-crosslinking or crosslinked by addition of a suitable agent. [0021] The binder is in an amount of about 10 to about 30 percent of the total weight of the base web fibers and binder. [0017]

While the mat of GEEL provides the claimed fibers, the reference fails to use a binder that is at least partially cured and comprises before drying and curing a homopolymer or a copolymer of polyacrylic acid and a polyol.

ARKENS et al. relates to a formaldehyde-free curable aqueous composition containing a polyacid, a polyol and a phosphorus-containing accelerator. The composition may be used as a binder for heat resistant nonwovens such as nonwovens composed of fiberglass. (Abstract) The reference teaches that the polyacid may be a compound with a molecular weight less than about 1000 bearing at least two carboxylic acid groups and teaches that it may be a polymeric acid that is preferably an addition polymer formed from at least one ethylenically unsaturated monomer (such as methacrylic acid, acrylic acid, among others). (Refer to Col. 3, lines 45 through Col. 4, lines 1-5) The reference further teaches that the polyol may be triethanolamine (Col. 6, lines 1-6) The formaldehyde-free curable aqueous composition may also contain emulsifiers, pigments, fillers, colorants, wetting agents (*equated to hydrophilic material*), among other components. (Refer to Col. 6, lines 52-57) The reference teaches a nonwoven substrate made from a fiberglass fiber at 1.25 inches in length with a binder add-on of 28%. (Example 3)

Since both references are directed to mats comprising glass fibers, the purpose disclosed by ARKENS et al. would have been recognized in the pertinent art of GEEL.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the mats of GEEL and provide them with the binder composition of ARKENS et al. with the motivation of producing a heat-resistant nonwovens without formaldehyde as disclosed by ARKENS et al. (Col. 1, lines 11-55).

Although the prior art of GEEL and ARKENS does not explicitly teach the claimed ratio of wet tensile strength to dry tensile strength it is reasonable to presume that this property is inherent to a mat from the combination of GEEL and ARKENS. Support for said presumption is found in the use of like materials (i.e. nonwoven mat that includes glass fibers and polyester

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fibers, with a binder that prior to curing includes a polyacid and a polyol similar to the one claimed herein). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of wet tensile strength/dry tensile strength would obviously have been present one the product form the combination of GEEL and ARKEND is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 51-94 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 62-95 of copending Application No. 10/717,802 in view of GEEL (US 2003/0109190 A1). The claims of the copending application fail to teach the inclusion of man-made polymer fibers as a blend with glass fibers. GEEL discloses a nonwoven reinforcing mat that includes a base web having about

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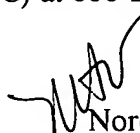
10 to about 80 percent by weight glass fibers, about 20 to about 90 percent by weight polyethylene terephthalate fibers and binders. (Abstract) The reference uses polyethylene terephthalate (polyester) fibers as the polymer fibers with diameter of from about 6 to about 16 microns and a length of from about 4 to about 25 mm [*0.15-0.98 inches*]. (Refer to [0008]-[0009]) It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the polymer fibers with the motivation of improving the tear strength, improved resistance against moisture and rot as disclosed by GEEL. [0015]

This is a provisional obviousness-type double patenting rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Norca L. Torres-Velazquez  
Primary Examiner  
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August 26, 2005